REMARKS

Upon entry of this Preliminary Amendment, claims 1-11, 17-19, 25-27, 33-49 and 51-107 are currently pending and under consideration. Claims 12-16, 20-24, 28-32 and 50 were cancelled by this amendment; in cancelling this subject matter from this application, applicants expressly reserve the right to pursue the remaining subject matter through one or more continuation applications.

New claims 54-107 are supported in the specification. In particular, support for claim 54 can be found, for example, in the preferred embodiment at pages 103-106 and in the embodiment at page 213.[1]

Support for claim 55 can be found, for example, in claim 54.

Support for claim 56 can be found, for example, in claim 54, in Examples 3 and 5, and in sixty-three of the compounds identified at pages 213-254 which possess a methylene or ethylene group for A and a C-H or C-halo group for M. In particular, twenty-two of the compounds identified at pages 213-254 that fit within claim 56 possess a C-Cl moiety for M, twelve of the compounds possess a C-F moiety for M, and twenty-nine of the compounds possess a C-H group.

Support for claim 57 can be found, for example, in claim 54, in Examples 3 and 5, and in sixty-three of the compounds identified at pages 213-254. In particular, twenty-two of the compounds identified at pages 213-254 that fit within claim 57 possess a chlorophenyl group for B, six of the compounds possess an amidinophenyl group and thirty-five of the compounds possess a phenyl group.

Support for claims 58 and 59 can be found, for example, in claim 54 and in seventeen of the compounds identified at pages 213-254 which possess a number of different compounds in which Q is unsubstituted, monosubstituted or disubstituted phenyl. In particular, support for disubstituted phenyl moieties for Q can be found in five of the compounds identified at pages 213-254.

Support for claims 60-69 can be found, for example, in the compounds identified at pages 213-254.

Support for claim 70 can be found, for example, in the preferred embodiment at pages 106-109 and in the embodiment at page 213.

Support for claim 71 can be found, for example, in claim 70.

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[1]See specification at page 213 wherein "the following further examples having an amidinoaralkyl or amidinoheteroaralkyl type Y° group can be prepared . . . "

Support for claim 72 can be found, for example, in claim 70, and in sixty-six of the compounds identified at pages 213-254 which possess a single covalent bond for A and a C-H or C-Cl for M. In particular, fifty-two of the compounds identified at pages 213-254 that fit within claim 72 possess a C-H moiety for M and fourteen of the compounds possess a C-Cl group for M.

Support for claim 73 can be found, for example, in claim 70 and in sixty-six of the compounds identified at pages 213-254. For example, four of the compounds identified at pages 213-254 possess an ethyl group for B, while thirty-five of the compounds posses a 2-propyl group. Other compounds identified at pages 213-254 possess, for example, a butyl, tert-butyl, pentyl or isopropyl group for B. Support for claim 74 can be found, for example, in claim 70, in Examples 6, 7, 20 and 21, and in thirty-two of the compounds identified at pages 213-254 which possess a number of different compounds in which Q is unsubstituted, monosubstituted or disubstituted phenyl.

Support for claim 75 can be found, for example, in claim 70, in Examples 6, 7, 20 and 21, and in forty-three of the compounds identified at pages 213-254 which possess a number of different compounds in which Q is unsubstituted, monosubstituted or disubstituted phenyl. In particular, support for disubstituted phenyl moieties for Q can be found in twelve of the compounds identified at pages 213-254.

Support for claim 76 can be found in Example 20.

Support for claim 77 can be found in Example 21.

Support for claims 78-89 can be found, for example, in the compounds identified at pages 213-254.

Support for claim 90 can be found, for example, in the preferred embodiment at pages 109-112 and in the embodiment at page 213.

Support for claim 91 can be found, for example, in claim 90.

Support for claim 92 can be found, for example, in claim 90, in Example 8, and in fifty-four of the compounds identified at pages 213-254 which possess a single covalent bond for A and a C-H or C-halo group for M. In particular, fourteen of the compounds identified at pages 213-254 that fit within claim 92 possess a C-Cl moiety for M, thirteen of the compounds possess a C-F moiety for M, and twenty-seven of the compounds possess a C-H group.

Support for claim 93 can be found, for example, in claim 90, in Example 8, and in fifty-four of the compounds identified at pages 213-254. For example, forty-

six of the compounds identified at pages 213-254 possess a cyclobutyl group while another four compounds possess a cyclopropyl group.

Support for claims 94 and 95 can be found, for example, in claim 90 and in thirty-seven of the compounds identified at pages 213-254 which possess a number of different compounds in which Q is unsubstituted, monosubstituted or disubstituted phenyl. In particular, support for disubstituted phenyl moieties for Q can be found in fourteen of the compounds identified at pages 213-254.

Support for claims 96-107 can be found, for example, in the compounds identified at pages 213-254.

In addition to the new claims, claims 1-11, 17-19, 25-27, 33-49, and 51-53 are amended to further refine the claims. The resulting claims are more formal and less colloquial in nature. In particular, formal amendments are made to

(i) improve the readability of claims 1-4, 9, 17, and 25 by introducing a structure for Y^0 as more fully discussed below;

(ii) remove the optional definition of R^{16} and R^{19} in claims 1-5, 9-11, 17-19, 25-27, and 33;

(iii) refine the definition of Q to adopt more formal nomenclature in claims 1-6, 9, 10, 17, 18, 25, 26, 33, and 34 as more fully discussed below;

(iv) refine the definition of B to adopt more formal nomenclature in claims 1, 2, 9, 10, 25, 26, 33, and 34 as more fully discussed below;

(v) replace the nomenclature of Y^0 in claims 5-7, 10, 11, 18, 19, 26, and 27 with the corresponding structures as more fully discussed below;

(vi) conform the definition of B to conventional Markush type language in claims 1, 2, and 33-36;

(vii) conform the definition of Z^0 to conventional Markush type language in claims 1, 2, and 33;

(viii) conform the definition of Q to conventional Markush type language in claims 1-3;

(ix) conform the definition of Y^0 to conventional Markush type language in claims 1-3;

(x) conform the definition of R^{32}-R^{36} to conventional Markush type language in claim 1;

(xi) improve the readability of the definition of A in claim 1;

(xii) improve the readability of the definition of Q^b in claims 1-4, 9, 10, 17, 18, 25, and 33;

(xiii) improve the readability of the definition of Q^s in claims 33 and 34;

(xiv) amend the definition of A in claims 9 and 17 to include a "bond";

(xv) change the capitalization of the word "Claim" to read "claim" in claims 2-11, 17-19, 25-27, and 33-49;

(xvi) insert the word "and" after the penultimate variable definition in claims 1-11, 17-19, 25-27, 33-36, and 51; and

(xvii) insert the word "or" after the penultimate species listed in claims 37, 52, and 53.

In claims 1-4, 9, 17, and 25 the definition of Y^0 was refined to improve readability by introducing a structure corresponding to the original claim language. Support for the definition of Y^0 in claims 1-4, 9, 17, and 25 can be found in the specification at page 17, wherein Y^0 is formula (IV). It should be noted that the ring substituents (*i.e.*, R^{16}, R^{17}, R^{18}, and R^{19}) are "each independently selected to maintain the tetravalent nature of carbon, trivalent nature of nitrogen, the divalent nature of sulfur, and the divalent nature of oxygen."[2] In order to fulfill this requirement, no substitution at a heteroatom is allowable. Further support for the refinements to Y^0 can be found in the dependent claims as originally filed. For example, claims 5-7, 10, 11, 18, 19, 26, and 27 list specific heteroaryl moieties for Y^0. Specific heteroaryls for Y^0 are also listed at pages 125-127 of the specification. As in claims 5-7, 10, 11, 18, 19, 26, and 27, none of the heteroaryls listed in the specification at pages 125-127 possess a substituted heteroatom.

Support for the definition of Q in claims 1-6, 9, 10, 17, 18, 25, 26, 33, and 34 can be found in the claims as originally presented in the parent application and in the specification. For example, as originally presented in the parent application, claim 5 included the following phrases in the definition of Q: "...the other carbon adjacent to the carbon at the point of attachment...", "a carbon adjacent to R^9 and two atoms from the carbon at the point of attachment...", and "a carbon adjacent to R^{13} and two atoms from the point of attachment..." Support for the refinement of the definition of Q can also be found in the dependent claims of the present application. For example, in claim 35, which ultimately depends from claim 33, Q is defined as specific substituted or unsubstituted aryl or heteroaryl moieties (*i.e.*, 3-amidocarbonyl-5-aminophenyl, 3-pyridyl, 5-amino-3-thienyl, etc.). None of the

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[2]See, specification at page 18.

substituents are present at a ring heteroatom, but instead are present only at ring carbon atoms. Further support for the refinement of Q in claims 1-6, 9, 10, 17, 18, 25, 26, 33, and 34 can be found in the specification at page 14, lines 1-12, wherein Q is formula (II). It should be noted that the ring substituents (*i.e.*, R^9-R^{13}) are "each independently selected to maintain the tetravalent nature of carbon, trivalent nature of nitrogen, the divalent nature of sulfur, and the divalent nature of oxygen."[3] In order to fulfill this requirement and maintain an aromatic or heteroaromatic ring system, no substitution at a heteroatom is allowable. These amendments do not alter the scope of the claims, but adopt more formal nomenclature to specify, by ring position, the substituent which may be present when the ring position is occupied by a carbon (since the heteroatoms of heteroaryls are not substituted), thereby obviating any conceivable misinterpretation.

Support for the refinement of B in claims 1, 2, 9, 10, 25, 26, 33, and 34 can be found in the claims as originally presented in the parent application and in the specification. As amended herein, the definition of B is refined under two circumstances - when B is defined to be phenyl or heteroaryl in claims 1, 2, 9, 10, 33, and 34 and when B is defined to be cycloalkyl or heterocyclyl in claims 1, 2, 25, 26, 33, and 34.[4] For example, as originally presented, claim 2 included the following phrases for the definition of B when defined to be a phenyl or heteroaryl: "...a carbon adjacent to the carbon at the point of attachment...", "...the other adjacent to the carbon at the point of attachment...", and "a carbon adjacent to R^{36} and two atoms from the carbon at the point of attachment..." None of the substituents are present at a ring heteroatom, but instead are present only at ring carbon atoms. Further support for the refinement of B in claims 1, 2, 9, 10, 33, and 34 can be found in the specification at page 5, lines 1-12, wherein B is formula (V). It should be noted that the ring substituents (*i.e.*, R^{32}-R^{36}) are "each independently selected to maintain the tetravalent nature of carbon, trivalent nature of nitrogen, the divalent nature of sulfur, and the divalent nature of oxygen."[5] In order to fulfill this requirement and maintain an aromatic or heteroaromatic ring system, no substitution at a heteroatom is allowable. Similarly, the definition of B was amended

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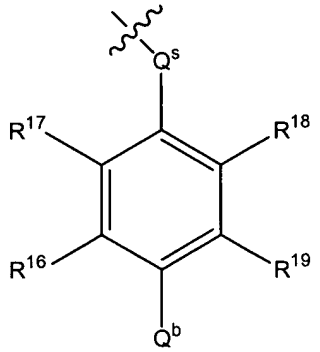
[3]Specification at p. 14, lines 9-12.

[4]In claims 1, 2, 33, and 34, B is defined as phenyl or heteroaryl in alternative definition B(i) and as cycloalkyl or heterocyclyl in alternative definition B(iii).

[5]Specification at p. 5, lines 10-12.

in claims 1, 2, 25, 26, 33, and 34 wherein B is defined to be cycloalkyl or heterocyclyl. For example, claim 2, as originally presented in the parent application, included the following phrases for the definition of B when defined to be a cycloalkyl or heterocyclyl: "...ring carbons and nirogens adjacent to the carbon atom at the point of attachment..." and "a ring carbon or nitrogen adjacent to the R^9 position and two atoms from...". Thus, when B is selected to be cycloalkyl, only ring carbons are available for substitution. However, when B is selected to be heterocyclic, both ring carbon and nitrogen atoms are available for substitution such that the tetravalent nature of carbon and the trivalent nature of nitrogen is maintained. As with Q above, these amendments do not alter the scope of the claims, but adopt a more formal nomenclature to specify, by ring position, the substituent which is present when the ring position is occupied by a carbon or nitrogen.

Support for the refinement of Y^0 in claims 5-7, 10, 11, 18, 19, 26, and 27 can be found in the claims as originally presented in the parent application and in the specification. In claim 5 of the parent application, for example, Y^0 is defined to include "1-Q^b-4-Q^s-2-R^{16}-3-R^{17}-5-R^{18}-6-R^{19}benzene."[6] To avoid any possibility of misinterpretation, applicants have refined these claims to recite the actual structure represented by the originally presented nomenclature. For example, "1-Q^b-4-Q^s-2-R^{16}-3-R^{17}-5-R^{18}-6-R^{19}benzene" has been replaced with the following formula:



[6] Y^0 is defined in originally presented claim 5 as follows: "Y^0 is selected from the group consisting of: 1-Q^b-4-Q^s-2-R^{16}-3-R^{17}-5-R^{18}-6-R^{19}benzene, 2-Q^b-5-Q^s-6-R^{17}-4-R^{18}-3-R^{19}pyridine, 3-Q^b-6-Q^s-2-R^{16}-5-R^{18}-4-R^{19}pyridine, 2-Q^b-5-Q^s-3-R^{16}-6-R^{18}pyrazine, 3-Q^b-6-Q^s-2-R^{18}-5-R^{18}-4-R^{19}pyridazine, 2-Q^b-5-Q^s-4-R^{17}-6-R^{18}pyrimidine, 5-Q^b-2-Q^s-4-R^{16}-6-R^{19}pyrimidine, 3-Q^b-5-Q^s-4-R^{16}-2-R^{19}thiophene, 2-Q^b-5-Q^s-3-R^{16}-4-R^{17}thiophene, 3-Q^b-5-Q^s-4-R^{16}-2-R^{19}furan, 2-Q^b-5-Q^s-3-R^{16}-4-R^{17}furan,3-Q^b-5-Q^s-4-R^{16}-2-R^{19}pyrrole, 2-Q^b-5-Q^s-3-R^{16}-4-R^{17}pyrrole, 4-Q^b-2-Q^s-5-R^{19}imidazole, 2-Q^b-4-Q^s-5-R^{17}imidazole, 3-Q^b-5-Q^s-4-R^{16}isoxazole, 5-Q^b-3-Q^s-4-R^{16}isoxazole, 2-Q^b-5-Q^s-4-R^{16}pyrazole, 4-Q^b-2-Q^s-5-R^{19}thiazole, and 2-Q^b-5-Q^s-4-R^{17}thiazole."

With the exception of the bond-line extending from Q^s, all of the structures presented in claims 5-7, 10, 11, 18, 19, 26, and 27 can be found in the specification at pages 125-127.[7] Like the amendments to Q and B above, this amendment does not alter the scope of the claims, but adopts more formal nomenclature to specify, by ring position, the substituent which may be present when the ring position is occupied by a carbon (since the heteroatoms of heteroaryls are not substituted), thereby obviating any conceivable misinterpretation.

While the claims are believed to be definitive even in the absence of these amendments, the amendments presented herein express the claim limitations in less colloquial, more formal terms. Accordingly, applicants respectfully request that the amendments detailed herein be entered and allowed.

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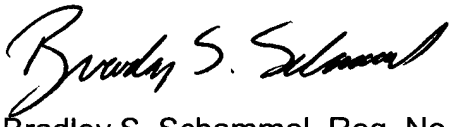
[7]The bond-line extending from Q^s illustrates that Q^s serves as the point of attachment for Y^0 to the remainder of the molecule.

Conclusion

In light of the foregoing, applicants request entry of the claim amendments and solicit an allowance of the claims.

The Commissioner is hereby authorized to charge any underpayment and credit any overpayment of government fees to Deposit Account No. 19-1345.

Respectfully submitted,



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